

REMARKS:Drawings:

The drawings have been objected to as not including reference numeral (35) found in the specification in paragraph [0006]. Fig. 2a has been amended to include reference numeral (35) and is submitted herewith as a replacement sheet. Accordingly, withdrawal of the objection is respectfully requested.

Specification:

The specification has been objected to due to informalities. The phrase — ,now U.S. Patent No. 6,647,766—has been added after the date “ Dec. 20, 2000”. Accordingly, withdrawal of the objection is respectfully requested.

Claim rejection – 35 USC 112, first paragraph

Claims 8-10 have been rejected under 35 USC 112, first paragraph as failing to comply with the written description requirement and for failing to comply with the enablement requirement.

Claim 8 has been amended in a manner believed to obviate the objection.

Claims 9 and 10, being dependent upon claim 8, are also believed to be in compliance with the requirements of 35 USC 112, first paragraph.

Accordingly, withdrawal of the objections is respectfully requested.

Claim rejection – 35 USC 112, second paragraph

Claim 17 has been rejected under 35 USC 112, second paragraph for indefiniteness. Claim 17 has been amended in a manner believed to obviate the objection. Accordingly, withdrawal of the objection is respectfully requested.

Claim rejection – 35 USC 102(e)

IBM1P051/CH919990048US2

- 8 -

Claims 1, 15 and 16 have been rejected under 35 USC 102(e) over Bindell (US 6,405,584).

Claim 1 has been amended to recite the limitation that the cantilever stands out of the plane of said carrier element due to a stress created by at least one material integral with the cantilever or coupled to the cantilever that causes the cantilever to stand out of the plane of the carrier element. In contrast, the cantilever of Bindell is formed with the angled central portion. No stresses are involved to create this shape. As such, claim 1 is believed to be allowable over Bindell.

Because of their dependence upon claim 1, claims 15 and 16 incorporate the limitations of claim 1, and are therefore also believed to be allowable over Bindell.

Allowance of claims 1, 15, and 16 is respectfully requested.

Claim rejection – 35 USC 102(a)

Claims 1, 2, 13, 15, 16, and 18 have been rejected under 35 USC 102(a) over Shirakawabe (US 5,992,225).

Claim 1 has been amended to recite the limitation that the cantilever stands out of the plane of said carrier element due to a stress created by at least one material integral with the cantilever or coupled to the cantilever that causes the cantilever to stand out of the plane of the carrier element. In contrast, the cantilever of Shirakawabe is formed with the angled central portion. No stresses are involved to create this shape. As such, claim 1 is believed to be allowable over Shirakawabe.

Because of their dependence upon claim 1, claims 2, 13, 15, 16, and 18 incorporate the limitations of claim 1, and are therefore also believed to be allowable over Shirakawabe.

Allowance of claims 1, 2, 13, 15, 16, and 18 is respectfully requested.

Claim rejection – 35 USC 102(b)

Claims 1-5, 7, 11, 13, 15, and 17-19 have been rejected under 35 USC 102(b) over Miyazaki (US 5,276,672).

IBM1P051/CH919990048US2

- 9 -

Claim 1 has been amended to recite the limitation that the cantilever normally stands out of the plane of said carrier element due to a stress created by at least one material integral with the cantilever or coupled to the cantilever that causes the cantilever to stand out of the plane of the carrier element. In contrast, the cantilever of Miyazaki is normally in the plane of the carrier element (see the Figs. of Miyazaki), and is caused to move out of that plane by application of a voltage to the cantilever to create a reverse piezoelectric effect that deforms the cantilever. Claim 1 can be distinguished from Miyazaki in that the presently claimed cantilever normally stands out of the plane of the carrier element, and no application of electrical current is applied to the presently claimed device in order to cause the cantilever to be out of the plane of the carrier element. As such, claim 1 is believed to be allowable over Miyazaki.

Because of their dependence upon claim 1, claims 2-5, 7, 11, 13, 15, and 17-19 incorporate the limitations of claim 1, and are therefore also believed to be allowable over Miyazaki.

Allowance of claims 1-5, 7, 11, 13, 15, and 17-19 is respectfully requested.

Claim rejection – 35 USC 102(a)

Claims 1-7, 11, 13, 15, and 17-19 have been rejected under 35 USC 102(a) over “VLSI-NEMS Chip for AFM Data Storage” by Deshpont et al. (hereinafter “the Deshpont article”).

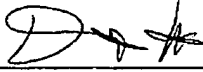
35 USC 102(a) requires that the invention was known by others, or disclosed in a printed publication, before the invention thereof by the applicant for a patent. In the instant case, the Deshpont article was authored by the applicants for the instant patent. Thus, if the Deshpont article indeed discloses the claimed invention as stated by the Examiner, then the applicants must have invented the presently claimed invention prior to writing the Deshpont article. Otherwise, the Deshpont article would either not disclose the invention as argued by the Examiner, or the Deshpont article would not have been written. Accordingly, applicants respectfully request that the rejection over the Deshpont article be withdrawn and claims 1-7, 11, 13, 15, and 17-19 be allowed.

Allowed claims

Applicants acknowledge and appreciate allowance of claims 12 and 14. Accordingly, claims 12 and 14 have been rewritten in independent form to include all of the limitations of the base claim and any intervening claims.

In the event a telephone conversation would expedite the prosecution of this application, the Examiner may reach the undersigned at (408) 971-2573. For payment of any additional fees due in connection with the filing of this paper, the Commissioner is authorized to charge such fees to Deposit Account No. 09-0466 (Order No. CH919990048US2).

Respectfully submitted,

By: 
Dominic M. Kotab
Reg. No. 42,762

Date: 7/9/04

Silicon Valley IP Group, PC
P.O. Box 721120
San Jose, California 95172-1120
Telephone: (408) 971-2573
Facsimile: (408) 971-4660

IBM1P051/CH919990048US2

- 11 -